



STATE OF CONNECTICUT

Department of Public Health

Drinking Water Section

Instructions for Completing the Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR) Compliance Monitoring Plan

Purpose: The Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR) Compliance Monitoring Plan form is used to satisfy the monitoring plan development requirement under the Stage 2 DBPR. The monitoring plan must be developed, implemented, maintained and kept available on file for review by the Connecticut Department of Public Health.

I. General Information

A. Public Water System (PWS) Information

- PWS ID:** Public Water System Identification Number (CTXXXXXXXX).
- PWS Name:** Name of the Public Water System.
- PWS Address:** Physical address of the Public Water System.
- Population Served:** Population served by the Public Water System.
- System Type:** Identify if the system is a Community (CWS) or a Non-Transient Non-Community public water system.
- Source Water Type:** Indicate Ground Water if a system is served entirely by ground water sources. Indicate Subpart H if Surface Water or Ground Water under the Direct Influence of Surface Water is used in whole or in part.
- Buying/Selling:** Indicate if the system sells to (Wholesale) and/or purchases (Consecutive) water from another public water system.

B. Monitoring Plan Date: Date of the monitoring plan.

C. PWS Operations

- Residual Disinfectant Type:** Indicate the type(s) of disinfectants used by the system.
- Number of Disinfected Sources:** Indicate the number of active disinfected sources.

D. Contact Person: Identify a person to contact if there are questions related to the monitoring plan.

II. Stage 2 DBPR Compliance Monitoring Requirements

A. Schedule: Indicate the Initial Distribution System Evaluation (IDSE) schedule of the public water system. Indicate N/A if the system was not required to comply with the IDSE requirements (i.e. new system or disinfection treatment was added). The schedule dictates the compliance start date for Stage 2 compliance monitoring as follows:

Schedule	Stage 2 Initial Compliance Monitoring Date
1	April 1, 2012
2	October 1, 2012
3	October 1, 2013
4	October 1, 2013

B. Stage 2 IDSE Completed: Indicate the IDSE requirement completed by the system. Indicate N/A if the system is new or disinfection treatment was added after the IDSE deadlines.

C. Number of Compliance

Monitoring Locations Required: Systems should select sites by alternating between high Total Trihalomethane (TTHM) and high Total Haloacetic Acids (HAA5) sites until the total number of locations is achieved. Refer to the following table to determine the total number of monitoring sites required:

COMPLIANCE MONITORING LOCATIONS AND FREQUENCIES

SOURCE WATER TYPE	POPULATION SIZE CATEGORY	MONITORING FREQUENCY	DISTRIBUTION SYSTEM MONITORING LOCATION TOTAL PER MONITORING PERIOD ²
Surface Water and Ground Water Under the Direct Influence of Surface Water (Subpart H)	<500	Per Year	2
	500 – 3,300	Per Quarter	2
	3,301 – 9,999	Per Quarter	2
	10,000 – 49,999	Per Quarter	4
	50,000 – 249,999	Per Quarter	8
	250,000 – 999,999	Per Quarter	12
	1,000,000 – 4,999,999	Per Quarter	16
Ground Water	≥ 5,000,000	Per Quarter	20
	<500	Per Year	2
	500 – 9,999	Per Year	2
	10,000 – 99,999	Per Quarter	4
	100,000 – 499,999	Per Quarter	6
	≥ 500,000	Per Quarter	8

D. Compliance Monitoring Frequency:

Refer to the table above to determine the monitoring frequency required.

III. Stage 2 DBPR Compliance Monitoring Locations

The total number of locations listed in the table must match the total determined in Section II.C.

Stage 2 Monitoring Site ID: A unique ID code must be assigned to each sampling point. Monitoring Site ID codes must not exceed 11 characters nor should they contain any punctuation or spaces. If a water system plans to use an existing sampling location, the ID must match a location identified on its water quality monitoring schedule (<http://www.ct.gov/dph/cwp/view.asp?a=3139&q=387350>). Only one ID may be assigned to a discrete sampling location. Please do not use single digit numerals (1 to 9) as Sampling Point ID codes. The Department reserves the right to modify suggested Sampling Point ID Codes for data management and/or reporting purposes when appropriate.

Monitoring Location Description: Provide a description of the monitoring location. The most common use would be to input an address. For PWSs that are located at a single address, more specific information should be used to describe the sampling point, such as a specific apartment or room within a building. Utilities that have PWSs that encompass more than one town should be careful to differentiate between descriptions that could exist in more than one town (i.e. 100 Main Street). The description must be 20 characters or less. The Department may also request a schematic of the distribution system if necessary.

Location Type: Indicate if the monitoring location represents a High TTHM or High HAA5 location.

Justification: Provide a brief justification explaining how the monitoring location was selected.

IV. Peak Historical Month and Stage 2 DBPR Compliance Monitoring Schedule

A. Peak Historical Month: The compliance monitoring schedule must include monitoring during the peak historical month for TTHM and HAA5 concentration. The peak historical month should be determined by reviewing historical sample results, if available. Systems that do not have historical results may select the month of July, August or September.

B. Peak Historical Month:

Stage 2 Monitoring Site ID: Each monitoring location identified in Section III must have a monitoring schedule.

Projected Sampling Date: The number of periods (frequency of monitoring) required is identified in Section II.D.

Quarterly Monitoring Requirements

Systems required to monitor quarterly must complete Periods 1-4 and schedule monitoring at a regular frequency of every 90 days or less. For each period, enter a date when sampling is expected to be completed. It is recommended that systems start with a date within the Peak Historical Month and use that date to establish dates for the remaining periods.

For example: A Schedule 3 system serving a population of 10,000 chooses a sampling date of August 15 which falls within its Peak Historical Month. The system must begin compliance monitoring by October 1, 2013. Period 1 would begin October 1, 2013 so therefore August 15 falls in Period 4. The system should determine sampling dates for Periods 1-4 by subtracting 90 days from August 15 to get May 17, 90 days from May 17 to get February 17 and 90 days from February 17 to get November 19 as summarized in the table excerpt below:

Period 1 10/1/2013-12/31/2013	Period 2 1/1/2014-3/31/2014	Period 3 4/1/2014-6/30/2014	Period 4 7/1/2014-9/30/2014
11/19	2/17	5/17	8/15

Yearly Monitoring Requirements

Systems required to monitor yearly must complete the period that contains with the Peak Historical Month. For that period, enter a date when sampling is expected to be completed.

For example: A Schedule 3 system serving a population of 300 chooses a sampling date of August 15 which falls within its Peak Historical Month. The system must begin compliance monitoring by October 1, 2013. Period 1 would begin October 1, 2013 so therefore August 15 falls in Period 4. The system would determine sampling dates as summarized in the table excerpt below:

Period 1 10/1/2013-12/31/2013	Period 2 1/1/2014-3/31/2014	Period 3 4/1/2014-6/30/2014	Period 4 7/1/2014-9/30/2014
			8/15

V. Compliance Calculation Procedures

Stage 2 DBPR requires water systems to calculate a quarterly locational running annual average (LRAA) for TTHM and HAA5 at each monitoring location identified in Section IV.B. The LRAA is compared to the Maximum Contaminant Levels for TTHM (0.080 mg/L) and HAA5 (0.060 mg/L) to determine compliance.

Initial LRAA for a Quarterly monitoring schedule: $LRAA = (Period\ 1 + Period\ 2 + Period\ 3 + Period\ 4) / 4$

Initial LRAA for a Yearly monitoring schedule: LRAA = Sample result for that year

Example Compliance Calculation for Systems Monitoring Quarterly						
Date	TTHM result mg/L	LRAA for TTHM	TTHM MCL Violation?	HAA5 Result mg/L	LRAA for HAA5	HAA5 MCL Violation?
8/15/2013	0.096	$(0.096+0+0+0)/4 = 0.024\text{ mg/L}$	No	0.044	$(0.044+0+0+0)/4 = 0.011\text{ mg/L}$	No
11/14/2013	0.072	$(0.096+0.072+0+0)/4 = 0.042\text{ mg/L}$	No	0.020	$(0.044+0.020+0+0)/4 = 0.016\text{ mg/L}$	No
2/15/2014	0.060	$(0.096+0.072+0.060+0)/4 = 0.057\text{ mg/L}$	No	0.024	$(0.044+0.020+0.024+0)/4 = 0.022\text{ mg/L}$	No
5/12/2014	0.088	$(0.096+0.072+0.060+0.088)/4 = 0.079\text{ mg/L}$	No	0.030	$(0.044+0.020+0.024+0.030)/4 = 0.030\text{ mg/L}$	No
8/16/2014	0.120	$(0.072+0.060+0.088+0.120)/4 = 0.085\text{ mg/L}$	Yes	0.050	$(0.020+0.024+0.030+0.050)/4 = 0.031\text{ mg/L}$	No
11/12/2014	0.060	$(0.060+0.088+0.120+0.060)/4 = 0.082\text{ mg/L}$	Yes	0.024	$(0.024+0.030+0.050+0.024)/4 = 0.032\text{ mg/L}$	No
2/15/2015	0.048	$(0.088+0.120+0.060+0.048)/4 = 0.079\text{ mg/L}$	No	0.012	$(0.030+0.050+0.024+0.012)/4 = 0.029\text{ mg/L}$	No

Please submit the completed form, a General Application Form and all Supporting Documents to:

DWDCCompliance@ct.gov

or

Connecticut Department of Public Health
 Drinking Water Section
 410 Capitol Avenue, MS#51WAT
 P.O. Box 340308
 Hartford, CT 06134-0308

Please contact the Department of Public Health, Drinking Water Section with any questions at 860-509-7333.